Experimental Neurology

A JOURNAL OF NEUROSCIENCE RESEARCH

EDITOR-IN-CHIEF
John R. Sladek, Jr.
The Chicago Medical School

VOLUME 153, 1998

ACADEMIC PRESS

Susan M. Knoblach and Alan I. Faden. Interleukin-10 Improves Outcome and Alters Proinflammatory Cytokine Expression after Experimental Traumatic Brain Injury 143

Estifanos Ghebremedhin, Christian Schultz, Eva Braak, and Heiko Braak. High Frequency of Apolipoprotein E ϵ4 Allele in Young Individuals with Very Mild Alzheimer's Disease-Related Neurofibrillary Changes 152

Stephanie M. Fullerton, Warren J. Strittmatter, and William D. Matthew. Peripheral Sensory Nerve Defects in Apolipoprotein E Knockout Mice 156

Brief Communications

Susumu Higuchi, Hiroyuki Arai, Sachio Matsushita, Toshifumi Matsui, Teiko Kimpara, Atsushi Takeda, Katsuyuki Shirakura. Mutation in the α-Synuclein Gene and Sporadic Parkinson's Disease, Alzheimer's Disease, and Dementia with Lewy Bodies 164

P. Zambenedetti, R. Giordano, and P. Zatta. Histochemical Localization of Glycoconjugates on Microglial Cells in Alzheimer's Disease Brain Samples by Using *Abrus precatorius, Maackia amurensis, Momordica charantia,* and *Sambucus nigra* Lectins 167

Number 2, October 1998

David A. Hopkins, Jean-Christophe L. Plumier, and R. William Currie. Induction of the 27-kDa Heat Shock Protein (Hsp27) in the Rat Medulla Oblongata after Vagus Nerve Injury 173

Javier Carrasco, Joaquin Hernandez, Berta Gonzalez, Iain L. Campbell, and Juan Hidalgo. Localization of Metallothionein-I and -III Expression in the CNS of Transgenic Mice with Astrocyte-Targeted Expression of Interleukin 6 184

David M. Yurek. Glial Cell Line-Derived Neurotrophic Factor Improves Survival of Dopaminergic Neurons in Transplants of Fetal Ventral Mesencephalic Tissue 195

Hui-Qiu Wu and Robert Schwarcz. Focal Microinjection of γ-Acetylenic GABA into the Rat Entorhinal Cortex: Behavioral and Electroencephalographic Abnormalities and Preferential Neuron Loss in Layer III 203

P. J. Blanchet, S. Konitsiotis, K. Hyland, L. A. Arnold, K. D. Pettigrew, and T. N. Chase. Chronic Exposure to MPTP as a Primate Model of Progressive Parkinsonism: A Pilot Study with a Free Radical Scavenger 214

Midori A. Yenari, David Kunis, Guo Hua Sun, David Onley, Linda Watson, Stephanie Turner, Steven Whitaker, and Gary K. Steinberg. Hu23F2G, an Antibody Recognizing the Leukocyte CD11/CD18 Integrin, Reduces Injury in a Rabbit Model of Transient Focal Cerebral Ischemia 223

Patrick R. Hof, Ping-Yu Lee, Glendy Yeung, Rong-Fang Wang, Steven M. Podos, and John H. Morrison. Glutamate Receptor Subunit GluR2 and NMDAR1 Immunoreactivity in the Retina of Macaque Monkeys with Experimental Glaucoma Does Not Identify Vulnerable Neurons 234

Clorinda Arias, Francisco Becerra-García, Isabel Arrieta, and Ricardo Tapia. The Protein Phosphatase Inhibitor Okadaic Acid Induces Heat Shock Protein Expression and Neurodegeneration in Rat Hippocampus *in Vivo* 242

D. L. Tolbert and J. Heckroth. Purkinje Cell Transplants in *Shaker* Mutant Rats with Hereditary Purkinje Cell Degeneration and Ataxia 255

Naoyuki Nakao, Kunio Nakai, and Toru Itakura. Changes in the Mitochondrial Enzyme Activity in Striatal Projection Areas after Unilateral Excitotoxic Striatal Lesions: Partial Restoration by Embryonic Striatal Transplants 268

Daniel J. David, Nancy R. Zahniser, Barry J. Hoffer, and Greg A. Gerhardt. *In Vivo* Electrochemical Studies of Dopamine Clearance in Subregions of Rat Nucleus Accumbens: Differential Properties of the Core and Shell 277

Andrew M. Gordon. Task-Dependent Deficits during Object Release in Parkinson's Disease 287

Matt Fraidakis, Thomas Klason, Henrich Cheng, Lars Olson, and Christian Spenger. High-Resolution MRI of Intact and Transected Rat Spinal Cord 299

R. Jeroen Pasterkamp, Roman J. Giger, and Joost Verhaagen. Regulation of Semaphorin III/Collapsin-1 Gene Expression during Peripheral Nerve Regeneration 313

K. A. Jenrow, X. Zhang, W. E. Renehan, and A. R. Liboff. Weak ELF Magnetic Field Effects on Hippocampal Rhythmic Slow Activity 328

Barbara Monti, Mauro Sparapani, and Antonio Contestabile. Differential Toxicity of Protease Inhibitors in Cultures of Cerebellar Granule Neurons 335

Curtis B. Dobson, Jacqueline Graham, and Ruth F. Itzhaki. Mechanisms of Uptake of Gallium by Human Neuroblastoma Cells and Effects of Gallium and Aluminum on Cell Growth, Lysosomal Protease, and Choline Acetyl Transferase Activity 342

Heiko Braak and Eva Braak. Involvement of Precerebellar Nuclei in Pick's Disease 351

Fifth Annual Conference of the American Society for Neural Transplantation Abstracts of Poster and Slide Presentations 367

Author Index for Volume 153 393

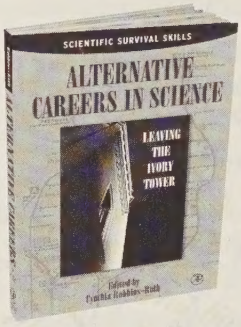
Experimental Neurology **and** ***Neurobiology of Disease*** **are abstracted and indexed in: Biological Abstracts (BIOSIS), Chemical Abstracts, Current Contents/Life Sciences, Excerpta Medica (EMBASE), Index Medicus (MEDLINE), Psychological Abstracts (PsychINFO), Reference Update, Research Alert, ISI's Science Citation Index, and SCISEARCH.**

MAP YOUR FUTURE *with Academic Press Career Resources*

Alternative Careers in Science

Leaving the Ivory Tower

Edited by
Cynthia Robbins-Roth



"The health care revolution is having profound effects on the nation's academic medical centers, creating threats and opportunities for researchers. While secure positions in academia may be harder to come by, the biotechnology and pharmaceutical industries are flourishing. As one who has traveled the halls of academe and industry, I can attest to the viability of such transitions as well as the quality of opportunity in both sectors. This book will provide an excellent tool for scientists and scientists-in-training to better understand industry and the nature of research outside the Ivory Tower."

—RALPH SNYDERMAN, M.D., James B. Duke Professor of Medicine, Chancellor for Health Affairs, Dean, School of Medicine, and CEO, Duke University Medical Center & Health System

"**Alternative Careers in Science** is a first-class guide for graduate students and postdoctorates who are considering careers outside the lab... I wish that someone had published this kind of guide 15 years ago when I was considering my own transition to a non-research career."

—WALTER SCHAFFER, Ph.D., NIH Research Training Officer

KEY FEATURES

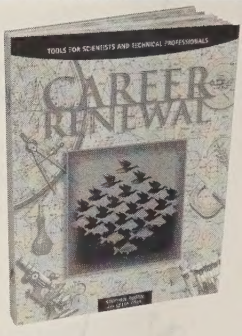
- Illustrates a typical day's scenario
- Explains what career opportunities stem from a position
- Describes the basic job, qualifications, responsibilities, and expectations
- Covers how long to expect to be in a training phase
- Shows existing steps in the promotion ladder and salary ranges
- Presents a different career track in each chapter
- Allows scientists to compare career opportunities

Paperback: $29.95/£19.95
March 1998, c. 267 pp./ISBN: 0-12-589375-2

Career Renewal

Tools for Scientists and Technical Professionals

Stephen Rosen and Celia Paul



"To those familiar with the popular career development literature, this is a variation of What Color is Your Parachute?, but geared for scientists and engineers. What especially distinguishes their book, besides their use of science metaphors, is the case studies of scientists and other technical professionals making career changes...If you want to take a brief and private time out to think about what matters in your career and life, and how well your current situation matches your values and skills and interests, Rosen and Paul provide tools for organizing your thoughts and feelings."

—IEEE SPECTRUM

BENEFITS

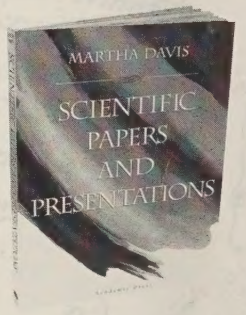
- Serves as a guide for scientists, engineers, and technical professionals to find a different and satisfying career by identifying career options in any field
- Features numerous personal case histories of those who have successfully made the transition from academia into the business world
- Helps identify your strengths through numerous assessment surveys developed for and by science professionals
- Discusses career selection criteria, supplemental references, the use and misuse of the Internet in a job search, and examples of appropriate on-line searches
- Offers extensive resume help with complete discussions of how to research and develop an appropriate resume
- Contains career resources on professional networking, mentoring, recruiters, preparing for interviews, and salary negotiations

Paperback: $24.95/£19.95
1997, c. 352 pp./ISBN: 0-12-597060-9

Awarded Four Stars by Doody Publishing Reviews!

Scientific Papers and Presentations

Martha Davis



"Many alternative references are available, but this book would be my first choice for advanced college students, or graduate students, including medical students and residents. The book itself is an outstanding example of effective written communication."

—DOODY PUBLISHING

KEY FEATURES

- Provides protocols and criteria for a wide range of scientific written and spoken communications
- Presents logical, sensible approaches to communicating with diverse audiences
- Written in a conversational style for easy reading
- Includes guidelines, examples, processes, and answers to questions about theses, proposals, posters, slide presentations, publications, and related issues
- Serves as companion handbook to your style manual
- Detailed, annotated appendices provide practical examples and commentary

Paperback: $19.95/£14.95
1996, 296 pp./ISBN: 0-12-206370-8

Order from your local bookseller or directly from:

Academic Press
Order Fulfillment Dept. **DM**27103
6277 Sea Harbor Drive
Orlando, FL 32887
CALL TOLL FREE: **1-800-321-5068** FAX: **1-800-874-6418**
E-MAIL: **ap@acad.com**
Harcourt Brace & Co
Customer Services Dept.
Footscray High Street, Sidcup, Kent DA14 5HP, U.K.
CALL : **+44(0)-181-308-5700** FAX: **+44(0)-181-309-0807**

Secure online ordering!
www.academicpress.com

Prices in U.S. dollars and subject to change without notice.
©1998 by Academic Press. All Rights Reserved.

DH/CG/LBS—42048 5/98